

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Original) A wound dressing comprising a support sheet and a layer of a synthetic hydrogel material coated onto the support sheet, wherein an active enzyme is dispersed in the synthetic hydrogel material.

Claim 2. (Original) A wound dressing according to claim 1, wherein the support sheet comprises a polymer film or a woven, nonwoven or knitted fabric sheet.

Claim 3. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 1, wherein the support sheet is adapted to block or restrict passage of liquid from a back surface of the sheet to a wound facing surface of the sheet.

Claim 4. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 1, wherein the hydrogel layer has a dry basis weight of from 10 to 200g/m<sup>2</sup>.

Claim 5. (Currently Amended) A wound dressing according to claim 1 ~~or 2~~, wherein the synthetic hydrogel material is cross-linked hydrophilic polymer of a hydrophilic monomer and optionally one or more comonomers, together with water and/or one or more organic plasticisers, and optionally together with less than about 10% of one or more additives selected from surfactants, polymers, pH regulators, bioactive compounds and mixtures thereof.

Claim 6. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 5, wherein the hydrogel layer comprises a hydrogel material selected from gels formed from vinyl alcohols, vinyl esters, vinyl ethers and carboxy vinyl monomers, meth(acrylic) acid, acrylamide, N-vinyl pyrrolidone, acylamidopropane sulphonic acid, pluronic (block polyethylene glycol, block polypropylene glycol)polystyrene maleic acid, NN-dimethylacrylamide, diacetone acrylamide or acryloyl morpholine.

Claim 7. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 6, wherein the hydrogel layer comprises a plasticiser.

Claim 8. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 6, wherein the hydrogel layer is apertured in register with apertures in the support layer.

Claim 9. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 6, wherein the enzyme is chemically bonded with the synthetic hydrogel material.

Claim 10. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 6, wherein the enzyme is selected from the group consisting of:

- (a) antimicrobial enzymes such as lysozyme;
- (b) oxidase enzymes such as lactate oxidase, glucose oxidase, hexose oxidase, cholesterol oxidase, galactose oxidase, pyranose oxidase, choline oxidase, pyruvate oxidase, oxalate oxidase, glycollate oxidase and D-aminoacid oxidases; (c) catalase;
- (d) peroxidase enzymes such as lactoperoxidase, horseradish peroxidase, iodide peroxidase, chloride peroxidase and myeloperoxidase;
- (e) Matrix forming and degrading enzymes, including proteinases and proteases, for example Streptokinase, collagenase and streptodornase , bromelain, plasmin and trypsin, Urokinase, plasmin, brinolase, tissue plasminogen activator, Factor XIIIa, thrombin, Von Willibrand factor,
- (f) Metabolic enzymes: for example Hexokinase, Phosphoglucose isomerase, phosphofructokinase, Aldose, Triose, phosphate isomerase, glyceraldehydes 3-phosphate dehydrogenase, phosphoglycerate kinase, phosphoglycerol mutase, enolase, pyruvate kinase, Citrate synthase, Aconitase, Isocitrate lyase, malate synthase, malate dehydrogenase;
- (g) Lysyl oxidases; and mixtures thereof.

Claim 11. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 6, further comprising an layer of wound-fluid absorbent material.

Claim 12. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 11, wherein the dressing further comprises a substantially liquid-impermeable backing layer covering the hydrogel layer and the support sheet and the optional absorbent layer.

Claim 13. (Original) A wound dressing according to claim 8, wherein the backing layer extends beyond at least one edge of the hydrogel layer and support sheet to provide an adhesive-coated margin adjacent to said edge for adhering the dressing to a surface.

Claim 14. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 12, further comprising one or more protective cover sheets over the wound facing surface of the hydrogel layer and support sheet.

Claim 15. (Currently Amended) A wound dressing according to ~~any preceding~~ claim 14, wherein the dressing is sterile and packaged in a microorganism-impermeable container.

Claim 16. (Original) A method of making a wound dressing comprising the steps of:  
preparing a hydrogel premix comprising a synthetic hydrogel polymer precursor and an enzyme;  
applying a layer of the premix to a solid support; followed by  
polymerising the premix on the support to produce a layer of synthetic hydrogel material on the support, wherein an active enzyme is dispersed in the synthetic hydrogel material.

Claim 17. (Original) A method according to claim 16, wherein the hydrogel premix is UV-curable and the step of polymerizing comprises curing the hydrogel with ultraviolet light.

Claim 18. (Original) A method according to claim 16, wherein the hydrogel premix comprises an isocyanate-capped prepolymer, and said step of polymerising comprises allowing said prepolymer to react with a chain extending compound.